

**What is Claimed is:**

1. A light-emitting semiconductor device having enhanced brightness, comprising:
  - (a) a semiconductor substrate;
  - (b) an active layer located above the semiconductor substrate, for inducing illumination of light;
  - (c) a conductive back contact located below the semiconductor substrate; and
  - (d) a conductive front contact located above the active layer, the front contact including a metallic bonding pad and ohmic contact metallic patterns, the metallic patterns of the front contact having a minimum dimension ranging between 0.1 and 5 micrometers and distributed above the active layer.
2. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the semiconductor substrate is GaAs.
3. The light-emitting semiconductor device having enhanced brightness of Claim 2, wherein the active layer is AlGaInP.
4. The light-emitting semiconductor device having enhanced brightness of Claim 2, wherein the active layer is AlGaAs.
5. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the semiconductor substrate is sapphire.
6. The light-emitting semiconductor device having enhanced brightness of Claim 4, wherein the active layer is AlGaInN.
7. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the active layer and the front contact

is provided with a capping layer therebetween.

8. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the metallic patterns of the front contact is configured to an interconnected mesh and in electrical connection with the metallic bonding pad.
9. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the metallic patterns of the front contact are disconnected.
10. The light-emitting semiconductor device having enhanced brightness of Claim 1, wherein the metallic patterns of the front contact are disconnected, and in electrical connection with the metallic bonding pad by means of a conductive layer incapable of absorbing light illuminated by the active layer.
11. The light-emitting semiconductor device having enhanced brightness of Claim 7 or 8, wherein the metallic patterns of the front contact are embedded and interconnected in an ITO layer.
12. A light-emitting device having enhanced brightness, comprising:
  - (a) a substrate;
  - (b) an active layer located above the substrate, for inducing generation of light;
  - (c) a back contact located below the substrate; and
  - (d) a front contact located above the active layer, the front contact including a metallic bonding pad and ohmic contact metallic patterns, the metallic patterns of the front contact having a minimum dimension ranging between 0.1 and 5 micrometers and distributed above the active layer.
13. The light-emitting semiconductor device having enhanced brightness of Claim 12, wherein the metallic patterns of the front

contact is configured to an interconnected mesh and in electrical connection with the metallic bonding pad.

14. The light-emitting semiconductor device having enhanced brightness of Claim 12, wherein the metallic patterns of the front contact are disconnected.
15. The light-emitting semiconductor device having enhanced brightness of Claim 13 or 14, wherein the metallic patterns are in electrical connection with the metallic bonding pad by means of a conductive layer incapable of absorbing light illuminated by the active layer.
16. The light-emitting semiconductor device having enhanced brightness of Claim 13 or 14, wherein the metallic patterns of the front contact are embedded and interconnected in an ITO layer.